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THE USE OF SCIENTIFIC INFORMATION IN THE UNDERGRADUATE TEACHING OF PSYCHOLOGY. APA-PSIEP REPORT NO. 17.

AMERICAN PSYCHOLOGICAL ASSN., WASHINGTON, D.C.

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DESCRIPTORS- *INFORMATION UTILIZATION, INFORMATION NEEDS, PSYCHOLOGISTS, *UNDERGRADUATE STUDY, *INFORMATION SOURCES, *PROFESSORS, PSYCHOLOGY, SURVEYS, QUESTIONNAIRES,

THE OBJECTIVE OF THIS STUDY WAS TO OBTAIN A GENERAL IDEA OF (1) THE CHARACTERISTICS OF PERSONS ENGAGED IN TEACHING PSYCHOLOGY AT THE UNDERGRADUATE LEVEL, (2) THE SOURCES THEY USED IN ORGANIZING THEIR COURSES, AND (3) THE NATURE OF THEIR PREPARATION FOR A SINGLE LECTURE. THE SAMPLE WAS TAKEN FROM THE FACULTIES OF 246 UNIVERSITIES AND COLLEGES THAT WERE A CROSS SECTION OF AMERICAN FOUR-YEAR INSTITUTIONS OF HIGHER LEARNING. THE FINDINGS ARE PRESENTED UNDER THE HEADINGS--(1) ACADEMIC BACKGROUND, (2) PROFESSIONAL BACKGROUND, (3) UNDERGRADUATE TEACHING, (4) RESPONSIBILITIES IN ADDITION TO UNDERGRADUATE TEACHING, (5) INFORMATION NEEDS ASSOCIATED WITH PROFESSIONAL RESPONSIBILITIES, (6) INFORMATION SOURCES UTILIZED BY TEACHERS OF UNDERGRADUATE COURSES, (7) SOURCES FOR INFORMATION FOR LECTURE, (8) INFORMATION PROBLEMS, (9) CHARACTERISTICS OF TEACHERS TEACHING DIFFERENT SUBJECT-MATTER COURSES AND THEIR USE OF SOURCES OF INFORMATION, (10) CHARACTERISTICS AND SCIENTIFIC AND PROFESSIONAL ACTIVITIES OF TEACHERS, (11) INFORMATION SOURCES USED BY TEACHERS, AND (12) DIFFERENCES IN PROFESSIONAL CHARACTERISTICS OF TEACHERS AND IN THEIR INFORMATION PRACTICES ASSOCIATED WITH STATUS OF SCHOOLS GRANTING THEIR HIGHEST DEGREE AND CURRENTLY EMPLOYING THEM. HARD COPY OF THIS DOCUMENT IS AVAILABLE FROM THE APA'S PROJECT ON SCIENTIFIC INFORMATION EXCHANGE IN PSYCHOLOGY, 1200 SEVENTEENTH STREET, N.W., WASHINGTON, D.C. 20036. (RP)

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THE USE OF SCIENTIFIC INFORMATION IN THE UNDERGRADUATE TEACHING OF PSYCHOLOGY

INTRODUCTION

In the Project's research[1] the main emphasis has been placed on the information sources and information-exchange practices of researchers. However, many of these active researchers were also teachers, and references to the utilization of scientific information for teaching were common and suggested that the investigation of information activities specifically associated with teaching would be a worthwhile extension of the Project's work. Since the teaching of graduate courses seemed in earlier Project studies to merge imperceptibly with the scientists' research activity, the Project staff decided that the research effort would be confined to the teaching of undergraduate courses in psychology. Accordingly, a questionnaire was designed, pretested, and further revised to incorporate helpful suggestions from teachers upon whom it was pretested. A copy of the questionnaire appears as the Appendix to the report.

The objective of this present study was to obtain a general idea of three areas: the characteristics of persons engaged in teaching psychology at the undergraduate level, the sources they used in organizing their courses, and the nature of their preparation for a single lecture. Additionally, it was hoped that this initial effort might suggest the fruitful directions in which to pursue further studies on users of scientific information, other than active researchers.

The sample was taken from the faculties of 246 universities and colleges that were a cross section of American four-year institutions of higher learning.[2] The sample was obtained by taking every other person listed in the departments of psychology or named as teaching psychology courses in other departments. When the sample of institutions was reviewed it was found to contain too few of certain types of institutions[3] to permit analysis. Accordingly, a few institutions were added from which additional persons were sampled.

A total of 1,123 questionnaires were mailed of which 47 were returned by the Post Office as undeliverable. Of the remaining 1,080, 678 (63%) were returned by teachers in the sample.[4] Six questionnaires (1%) were incomplete or unusable; 177 (26% of the returns) were those of respondents engaged in teaching only graduate level courses and who, according to the design of the questionnaire, completed only the first question related to their educational and teaching background. Thus, only 495 (73% of the returns) completed the entire questionnaire and provided data on their undergraduate teaching responsibilities and the information needs related to them.

This report deals first with characteristics of the respondents; second, with the nature of the respondents' professional responsibilities and the information needs related to these activities; third, with the sources of information used in course organization, and fourth, with a single lecture preparation. Since the design of the questionnaire permitted a comparison of teacher characteristics and information practices for the various courses upon which respondents reported, the fifth section is devoted to these findings. A final section examines differences

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[1] Reports of the American Psychological Association's Project on Scientific Information Exchange in Psychology, Volume 1, December 1963 and Volume 2, December 1965.

[2] The list of institutions was furnished by A. W. Astin who made his data on these institutions available to the Project. See A. W. Astin, Who Goes Where to College? (Chicago: Science Research Associates, 1965) for further details.

[3] These types included technological institutes, Catholic, and Negro universities and colleges and institutions of low quality in terms of attracting better students. In the work of A. W. Astin and his colleagues (see footnote 2), all were found to have special characteristics. No separate analysis was made of these groups because it was doubted that such analysis would greatly extend the findings on types of institutions presented in the last section of the report.

[4] Later, non-respondents were polled to determine whether they were teaching psychology courses at the time of the original survey. Of those polled, 51% responded and 44% of these respondents reported that they were not teaching any psychology courses when surveyed in which case the wording of the questionnaire was quite inappropriate.

associated with the institution from which the respondents received their degrees and the nature of their employing institution.

TABLE I

HIGHEST ACADEMIC DEGREE HELD BY RESPONDENTS AND BY SAMPLES FROM THE NATIONAL REGISTER

Degree	Graduate-Course Teachers N=177	Undergraduate-Course Teachers N=495	Psychologists Indicating Teaching as Main Work Activity* N=3,670	All Register Respondents in Psychology in 1964* N=16,804
Doctorate	89%	85%	84%	65%
Master's	10	14	15	33
Bachelor's	1	1	1	2

*These data appear in the psychology section of the NSF 1964 National Register of Scientific and Technical Personnel. Of the nearly 23,000 psychologists to whom National Register questionnaires were sent in March 1964, 73% provided usable data and indicated as their area of greatest scientific competence a specialty within the field of psychology.

CHARACTERISTICS OF THE RESPONDENTS

Academic Background

A comparison of the highest academic degrees earned by the 177 teachers of graduate courses and the 495 teachers of undergraduate courses[5] appears in Table I, which also includes data from the psychology section of the 1964 National Register of Scientific and Technical Personnel for 3,670 psychologists who indicated teaching as their primary work activity and for all psychologists who provided Register data in the 1964 survey (16,804). The degree patterns for both groups of respondents to this study and for teachers as depicted in the National Register data were very similar; however, the degree patterns of all three of these teaching groups differed rather sharply from all Register respondents in psychology in that the teachers had a much higher percentage of doctorates and less than half as many Master's degrees than was true of all psychologists taken together.

Not unexpectedly, and by a substantial margin, the major field of study for the highest academic degree was psychology for both groups of respondents in this study (teachers of graduate courses and teachers of undergraduate courses). Eight percent of the teachers of both graduate and undergraduate courses had degrees in education; only 6% and 5%, respectively, of these two groups held degrees in fields other than psychology or education (e.g., philosophy, sociology, religion, or mathematics).

The universities from which as many as 2% or more of the sample had obtained their degrees are listed in Table II. Most of the institutions appearing in Table II also were those from which the highest percentages of respondents to the psychology section of the 1964 National Register of Scientific and Technical Personnel had received their highest degrees; however, the Catholic University of America, the University of Illinois, the University of Indiana, and the University of Washington were reported somewhat more frequently in this sample than was true of Register data for psychologists, and several other institutions, such as Purdue, University of California at Los Angeles, University of California at Berkeley, and University of Chicago, were less well represented in the sample. Among the institutions infrequently represented among institutions granting degrees to members of the sample were ten foreign universities, each of which was represented by one respondent: Charles University, Estonian State University, McGill University, University of Heidelberg, Université Laval, University of Marburg, University of Montreal, University of Toronto, University of Vienna, and University of Windsor (Ottawa).

Sixty-nine percent of the graduate-course teachers and 73% of the undergraduate-course teachers had obtained their highest academic degrees between 1951 and 1965. However, somewhat more of the undergraduate-course teaching group had received degrees between 1961 and 1965 than was true of the teachers of graduate courses, as Table III shows.

[5]The designators, "teachers of undergraduate courses" or "undergraduate-course teachers", used throughout this section are employed for the sake of convenience and are not intended to imply that these teachers had no graduate teaching responsibilities. Such a designation serves primarily to distinguish these respondents, with whom this study is chiefly concerned, from those who taught only graduate courses and were, hence, ineligible for a study of the teaching of undergraduate courses in psychology.

TABLE II

INSTITUTION FROM WHICH 2% OR MORE OF UNDERGRADUATE COURSE TEACHERS RECEIVED THEIR HIGHEST ACADEMIC DEGREE

Institution Granting Degree	Undergraduate-Course Teachers N=495
University of Michigan	7%
Columbia University	5
State University of Iowa	5
Ohio State University	4
Harvard University	3
Northwestern University	3
University of Indiana	3
University of Minnesota	3
Yale University	3
Boston University	2
Catholic University of America	2
New York University	2
Pennsylvania State University	2
University of Illinois	2
University of Pittsburgh	2
University of Texas	2
University of Wisconsin	2
University of Washington	2

TABLE III

DATE OF HIGHEST ACADEMIC DEGREE

Date	Graduate-Course Teachers N=177	Undergraduate-Course Teachers N=495
1961 - 1965	16%	26%
1956 - 1960	26	29
1951 - 1955	27	18
1946 - 1950	17	11
1941 - 1945	7	5
1936 - 1940	3	5
1935 and before	5	6

Professional Background

A comparison of the two teaching groups in this sample with regard to the number of years since they had first had complete responsibility for teaching a course in psychology, presented in Table IV-A, showed the undergraduate-course group to have somewhat higher percentages in the intervals of 1-9 years and 20 or more years than was true of the graduate-course teaching group. The years of professional experience reported by the 3,670 psychologists in the 1964 National Register survey who indicated teaching as their main work activity and by the entire 16,804 participants in the psychology section of the 1964 Register are roughly equivalent and differ from the data for both groups of teachers. Approximately one half (53%) of the teachers of undergraduate courses in this sample had less than ten years experience in teaching, a finding that is exceptional among these samples.

Approximately the same percentage of the undergraduate-course teachers (32%) and graduate course teachers (35%) had been associated with their present institution for less than five years (Table IV-B). However, the latter group had somewhat higher percentages in the 10-14 and 15-19 year intervals than did undergraduate-course teachers.

TABLE IV-A

COMPARISON OF THE LENGTH OF TIME SINCE FIRST ASSUMING FULL RESPONSIBILITY FOR TEACHING A COURSE IN PSYCHOLOGY WITH YEARS OF EXPERIENCE AS REPORTED IN THE 1964 NATIONAL REGISTER OF SCIENTIFIC AND TECHNICAL PERSONNEL

Years of Experience	Graduate-Course Teachers N=177	Undergraduate-Course Teachers N=495	Psychologists Indicating Teaching as Main Work Activity* N=3,670	All Register Respondents in Psychology in 1964* N=16,804
1 or less	1%	3%	2%	2%
2 - 4	15	21	14	14
5 - 9	24	29	23	22
10 - 14	18	15	22	24
15 - 19	22	14	13	13
20 or more	12	18	22	20
Not indicated	9	<1	4	6

*These data were obtained from the psychology section of the National Science Foundation's 1964 National Register of Scientific and Technical Personnel, to which the response rate for psychology was 73%.

TABLE IV-B

NUMBER OF YEARS RESPONDENTS HAVE BEEN ASSOCIATED WITH THEIR PRESENT ACADEMIC INSTITUTION

Years	Graduate-Course Teachers N=177	Undergraduate-Course Teachers N=495
0 - 4	35%	32%
5 - 9	27	34
10 - 14	15	13
15 - 19	13	10
20 - 25	3	4
26 or more	3	6
Not indicated	4	0

TABLE V-A

ACADEMIC RANK OF RESPONDENTS

Rank	Graduate-Course Teachers N=177	Undergraduate-Course Teachers N=495
Professor	45%	33%
Associate Professor	19	29
Assistant Professor	18	29
Other (Lecturer, Instructor, Teaching Assistant, etc.)	15	8
Not indicated	3	<1

The data on academic rank for the graduate- and undergraduate-course teaching groups appear in Table V-A, which shows a substantially greater number of full professors among the graduate-course group. The departments in which both groups held their professional ranks appear in Table V-B; psychology, or some combination of psychology with a related field, predominated.

The various comparisons made between the teachers of graduate courses and those teaching undergraduate courses showed the latter group to have slightly fewer doctorates, to have

TABLE V-B

DEPARTMENTAL AFFILIATION OF RESPONDENTS

Department	Graduate-Course Teachers N=177	Undergraduate-Course Teachers N=495
Psychology	75%	85%
Education	8	6
Psychology and Education	5	7
Psychology and Sociology	1	1
Philosophy and Religion	4	<1
Other	6	1

received their degrees more recently, to have fewer years of experience, and to have fewer persons holding the rank of full professor than characterized those who taught only graduate courses.

PROFESSIONAL RESPONSIBILITIES AND INFORMATION NEEDS OF TEACHERS OF UNDERGRADUATE COURSES

Undergraduate Teaching

Thirty percent of the 495 respondents were teaching only one undergraduate course at the time of this survey; 29% taught two undergraduate courses; 21% three; 11% four; 7% five; and 1% taught six, seven, and eight courses, respectively. Sixty-five percent indicated that the students in their courses were primarily juniors or seniors; 31% stated that their students were for the most part freshmen and sophomores; and 2% found these two groupings to be approximately equally represented in their courses. The number of students in the majority of their classes tended to be less than 50: 28% of the respondents indicated 25 or fewer students in the course(s) upon which they reported; 28% indicated between 25 and 50; 24% reported classes larger than 50; and 11% failed to supply this information.

Two fifths of the teachers had not taught any of the undergraduate courses upon which they reported longer than three years; more than half (55%) the teachers had taught the courses they described longer than five years. Only 6% had taught any of their courses longer than 20 years.

Responsibilities in Addition to Undergraduate Teaching

The respondents were asked to check any professional activities in which they were engaged in addition to teaching undergraduates. Table VI shows these activities and the percentages indicating each. Nearly three fourths of the respondents were engaged in research of their own and nearly two thirds had responsibility for the guidance of research. Fifty-three percent had administrative responsibilities and half the respondents taught graduate as well as undergraduate courses. Some two fifths were involved in clinical work.

TABLE VI

ADDITIONAL PROFESSIONAL RESPONSIBILITIES OF TEACHERS OF UNDERGRADUATE COURSES

Professional Activity	Undergraduate-Course Teachers N=495
Own research	72%
Research guidance	61
Administrative duties	53
Preparation for and teaching of graduate courses	51
Clinical work (including therapy, counseling, testing)	41
Writing and editing	26
Consulting or applied work	21
Other (committee work, professional association work, speaking and lecturing, etc.)	8

After they had indicated their professional involvement, respondents were then asked to determine whether undergraduate teaching was the most time-consuming of their responsibilities. Approximately half (52%) affirmed that undergraduate teaching did indeed make the heaviest demand upon their time. Among those 238 teachers who found other activities more time-consuming than their undergraduate teaching, the most frequently mentioned activity (by 36% of the 238) was their own research, and the next most frequent one (23% of the 238 so indicating) was administrative work. Sixteen percent and 8%, respectively, designated the teaching of graduate courses and clinical work as most time-demanding.

In an effort to determine the overlap, if any, between their undergraduate teaching responsibilities and their other professional activities, respondents were asked to check any of their courses that dealt with the same subject-matter areas with which their research or their clinical and applied work were concerned. About a third (31%) were conducting research relevant to the specific area of at least one of their undergraduate courses, and approximately one fifth (19%) were engaged in clinical or applied work directly relevant to their undergraduate-teaching responsibilities.

Information Needs Associated with Professional Responsibilities

The respondents considered next the professional activity which placed the greatest demand upon them to gather and use scientific information. Again, approximately half (46%) stated that undergraduate teaching exerted the greatest demands of this nature. Of those 268 who did not so indicate, 125 designated their research as most information-demanding and 87 found the teaching of graduate courses placed the greatest demand upon them for the utilization of scientific information. None of the other activities was indicated by substantial percentages.

Although there was a sizable degree of overlap between undergraduate-teaching responsibilities and the respondents' other activities (which would apparently facilitate the utilization of information for both purposes), about two thirds of the respondents indicated that they collected and utilized in their teaching current information (defined in the questionnaire as recent findings in research or recent studies and innovations in applied work) over and above that which was necessary to the conduct of their research or applied work. This finding, viz., two thirds of the respondents sought and used in their undergraduate classes current, new, up-to-date information not specifically required by the other overlapping activities in which they were involved, is supported by the information they furnished on the sources used in their lecture preparation and is a most important consideration for the design of information services directed at teachers.

INFORMATION SOURCES UTILIZED BY TEACHERS OF UNDERGRADUATE COURSES

Nearly two thirds (64%) of the teachers of undergraduate courses maintained some type of file specifically for their undergraduate courses, and 30% indicated that the file was also used for other purposes in addition to teaching. As shown in Table VII, the type of filed material indicated by the largest percentage of teachers was preprints, reprints, and convention papers; next most

TABLE VII

MATERIALS FILED FOR USE IN UNDERGRADUATE COURSES

Type of Filed Material	Respondents Filing Each Type of Material N=495
Preprints, reprints, and convention papers	40%
Bibliographies	21
Film and tapes	16
Technical reports, informally circulated research reports, and term papers	15
Abstracts and clippings	15
Textbooks, other books, and periodicals	12
Notes and outlines	10
Sample tests	4
Case histories	3
Raw data	3

TABLE VIII

THE RESPONDENTS' USE OF ARCHIVAL SOURCES FOR UNDERGRADUATE TEACHING AND OTHER PURPOSES

Source	Teachers Using Sources for Undergraduate Teaching N=495	Teachers Using Sources for Purposes Other Than Undergraduate Teaching N=495
Annual Review of Psychology	38%	44%
Other annual reviews	9	12
Psychological Bulletin	35	42
Other sources of reviews	14	16
Psychological Abstracts	40	43
Other sources of abstracts	5	10
Contemporary Psychology	33	24
Other published sources of information	9	11

frequently indicated (though by only about half as many respondents) was bibliographies. Film and tapes, technical reports and informally circulated research reports and term papers, and abstracts and clippings were each indicated by at least 15% of the respondents. Thus the nature of the filed material for undergraduate teaching reflects the utilization of relatively current information as well as dependence upon archival sources.

Table VIII depicts the use of standard archival sources in the field of psychology and the degree to which they were supplemented by other archival sources. With the exception of Contemporary Psychology, utilization of all the types of sources in Table VIII was somewhat greater for other purposes than for undergraduate teaching. Equivalent percentages (38% and 40%) indicated the use of Annual Review of Psychology and of Psychological Abstracts, respectively, for teaching; a slightly lower percentage (35%) used the Psychological Bulletin for the same purpose. Percentages naming "other" sources were in all cases substantially smaller than those using the "standard" ones. Less than one third of the respondents did not report use of any archival sources.

The most frequently mentioned "other" source for reviews (by 23 respondents) was the Psychological Review, and the next most frequently mentioned (each by 7 respondents) were the Review of Educational Research and the Physiological Reviews. The three most frequently indicated sources of abstracts were: Child Development Abstracts (9 respondents), Biological Abstracts (6 respondents), and Sociological Abstracts (5 respondents). The "other" source for book reviews mentioned most often was Science, which was written in by 19 respondents.

Psychological Abstracts was the only source in Table VIII, when used in relation to the teaching of undergraduate courses, that received as high a percentage of use as did maintaining files of preprints, reprints, and convention papers (Table VII). However, the total number of respondents maintaining files for undergraduate teaching (345) and the number consulting archival sources for information needed in undergraduate teaching (357) were approximately equivalent.

THE PREPARATION OF A LECTURE FOR AN UNDERGRADUATE COURSE

Preparation for a particular lecture reveals somewhat more clearly the trends suggested in the data on the teaching of undergraduate courses. The following section describes briefly the involvement of each respondent in the area represented by his particular lecture, his information needs relative to the lecture, and the sources from which he derived useful information for inclusion in the lecture.

When asked to report on their most recent lecture to an undergraduate class, the respondents in this sample listed lecture topics that proved to be exceedingly diverse but could be roughly classified into a few rather general types, as Table IX shows. A question pertaining to research or clinical and applied responsibilities of respondents related specifically to the lecture topics they indicated showed them to be about equally divided; about half of the respondents stating that they did have such responsibilities directly related to the lecture they had given, and half stating that they did not. The specific activities related to the lecture topics and the percentages indicating each appear in Table X. This table further shows the percentages actually incorporating some of the activity-related material into the lecture.

TABLE IX

CONTENT OF LECTURES ON WHICH RESPONDENTS REPORTED

Lecture Content	Undergraduate-Course Teachers N=495
Explanation of a basic subject-matter area or concept in the field of psychology	41%
Procedural or methodological information	21
Theoretical material	19
Area of current controversy or concern (e.g., discussion of the misuse of psychological tests)	8
Historical, background, or overview presentation	8
Other	1
Formal lecture not given because course was a seminar or discussion group	1
Lecture topic not indicated	1

TABLE X

NATURE OF RESPONDENTS' INVOLVEMENT IN SPECIFIC AREA OF LECTURE

Type of Involvement	Reporting Other Activity in Area of Lecture* N=495	Incorporating Activity-Related Material in Lecture** N=495
Conducted research	28%	20%
Presently conducting research	20	13
Directing student research	18	12
Published article	18	12
Currently writing article	11	6
Currently writing book or chapter for book	9	6
Conducting clinical or applied work	14	13
Consulting (outside own institution)	10	8
Other (presenting paper, attending meeting or institute, etc.)	3	2

*More than one activity could be indicated.
**Information from more than one activity could be incorporated in lecture.

Seventy-four percent of the 235 respondents who were engaged in activities related to their lectures had either conducted relevant research or were currently conducting or supervising it; 55% of these 235 respondents actually incorporated some information from their past or present research into the lecture. Nearly all the respondents who were engaged in relevant clinical work incorporated information therefrom into their lectures, and the same was true for "other" activities such as attendance of meetings or institutes or the making of presentations. All respondents who engaged in any of these activities as a group included material more frequently from recent meetings in their lecture than the entire sample (37% as opposed to 27%).

Sources of Information for Lecture

Other than the information stemming from their related activities, information from a number of other sources was sought and frequently incorporated in lectures. The reasons given by 495 respondents for seeking supplementary material were: to up-date lecture material with more recent information (50%); to recheck accuracy or review course notes (35%); to orient oneself as completely as possible when presenting the topic for the first time or when introducing a new dimension to previous coverage (18%); and for a variety of other reasons such as being able to direct students to the best references and sources on the subject, providing visual material to illustrate the lecture, or examining interrelationships to other allied areas or disciplines, etc. (4%). Thirty percent of the respondents did not search any archival or other sources for material to supplement the lecture they described. Table XI depicts the respondents'

TABLE XI

SOURCES USED IN LECTURE PREPARATION BY UNDERGRADUATE TEACHERS

Source	Respondents Consulting Source*	Respondents Using Each Source Who Employed Information from Sources in Lecture**
Course text(s)	44%	70% (220)***
Other undergraduate texts	33	82 (165)
Other books	38	90 (187)
Journal literature	23	96 (115)
Annual Review of Psychology	9	61 (44)
Psychological Bulletin	7	82 (33)
Other sources of reviews	3	-- (16)
Psychological Abstracts	8	56 (41)
Other sources of abstracts	1	-- (4)
Other sources including technical reports, reprints, discussions, colloquia, etc.	16	96 (79)

*More than one source could be consulted.
**Information from more than one source could be incorporated.
***Number in parenthesis is base of percentage. No data is given for Ns below 20.

search of a number of sources (principally archival) for information for lectures, and it additionally shows whether the sources used afforded any lecture material.

The course text was the source most frequently consulted, but other books and journal literature, once they were consulted, were found to be the sources most consistently successful in providing information that was actually incorporated into the lecture. The course text, other texts, and other books were all searched by substantially higher percentages than were the other sources. More than a fifth of the respondents consulted journals, and almost all incorporated the material they found in journals into their lectures. "Other" sources were next most frequently consulted and were highly productive of lecture material. Those reported most often among "Other" sources were preprints and reprints, discussions with colleagues and/or students, technical and informally circulated research reports, one's own notes from graduate courses, research, or work on dissertation and from meetings of various types.

Professional meetings were the next sources examined in an effort to discover whether teachers derived any information applicable to their undergraduate lectures from attending professional gatherings and which types of gatherings were most likely to yield such information. Approximately a fourth (27%) of the 495 respondents reported obtaining information for a lecture from a professional meeting. The gatherings most frequently indicated by these respondents as having provided lecture material were: regional conventions (27% of the 136 respondents reporting the use of material from meetings); national meetings other than APA, such as the American Educational Research Association, Society for Research in Child Development, and Psychonomic Society (16%); APA conventions (19%); and colloquia outside one's own institution (20%).

Respondents also were asked to indicate any information from foreign countries that they incorporated into their lectures, and the nature of the source. Only 12% had included such information in the lecture upon which they were reporting and the main sources they checked were foreign books and foreign journals.

Since one specific lecture rather than an entire course was under consideration, it is not surprising that the percentages indicating use of certain archival sources, such as Psychological Abstracts and Annual Review of Psychology, were lower than those reported in Table VIII (dealing with any sources used relative to an entire course), and it is, perhaps, surprising that as many as 27% and 12%, respectively, had used material from professional gatherings and from foreign sources.

More than two thirds of the 495 respondents indicated that they did not consider the preparation for the lecture upon which they had reported in any way atypical. Those who did find it so gave varied explanations, few of which were common to more than two or, occasionally, three

of these respondents. Some examples are: "last lecture of semester," "less preparation than usual," "more preparation than usual," "outside my area," "dealt with methodology, therefore, less preparation required," "I was especially interested in it," and "had no interest in the topic."

TABLE XII

NATURE OF RESPONDENTS' INTEREST IN LECTURE TOPICS UPON WHICH THEY REPORTED

Reason for Special Interest in Topic	Undergraduate-Course Teachers* N=495
Conducting or planning research to which lecture topic is closely related	23%
Considered presentation or exposition of the topic a challenge	16
Conducting applied work to which the lecture topic is closely related	16
An area of preoccupation and involvement (of typically long-term duration)	11
A topic of special significance for or applicability to the persons taking the course	8
An area previously reviewed by the lecturer	3
An area or topic about which the lecturer had previously published an article or made an oral presentation	3
Other	1
Nature of interest not indicated	4

*More than one type of interest could be indicated.

Approximately three fourths (74%) of the respondents expressed particular interest in the lecture topic they had presented; Table XII describes the nature of or reasons for their interest. As might be expected from previous data on the research involvement of most respondents in the area of the courses they were teaching and of the lectures they had given, the relevance of their ongoing or planned research was the type of interest indicated by the highest percentage. The "challenge" of the topic and the relevance of their applied work to the subject matter of the lecture were two other types of interest each of which was expressed by nearly a fifth of these 367 "interested" respondents. Eleven percent did not really "explain" their interest; they affirmed its existence and generally added that it had existed for some considerable amount of time.

Information Problems

Finally, respondents were requested to enumerate any information problems pertaining to the course of study represented by the lecture upon which they had reported. Twenty-seven percent mentioned no problems; those described by the other 361 respondents appear in Table XIII. By far the most frequently reported problem was insufficient time to locate or assimilate all the relevant material. Particularly was this the case with teachers who carried a heavy course load, but it was reported also by teachers of only one or two courses. Since nearly all the teachers in this sample reported a number of professional responsibilities in addition to teaching, it is not surprising that time to prepare, even when the material was readily available, was a major problem. One area of difficulty about which the teachers wrote at some length was the problem of selecting and organizing material for presentation to undergraduates. Some teachers felt that their work was made much more difficult because the sources to which they would have liked to direct students were characterized both by a manner of presentation and terminology beyond the comprehension of most undergraduates. Related to this problem were the complaints about the poor quality of textbooks and the absence of good, basic, comprehensible reviews. Additionally, this sample made those comments, typical of many samples studied by the Project[6], about the poor quality of much of the published information and the plethora of trivia through which one had to plow to glean anything of sufficient worth to be included in the course.

CHARACTERISTICS OF TEACHERS TEACHING DIFFERENT SUBJECT-MATTER COURSES AND THEIR USE OF SOURCES OF INFORMATION

The questionnaire was arranged so that all questions were answered relative to the course or courses taught by a respondent. As a result, a comparison of teacher characteristics and

[6]Reports of the American Psychological Association's Project on Scientific Information Exchange in Psychology, Volume 1, December 1963 and Volume 2, December 1965. APA-PSIEP Reports #1,2, and 11.

TABLE XIII

INFORMATION PROBLEMS REPORTED BY RESPONDENTS

Information Problems Relative to Course in Which Teacher Gave Lecture	Respondents Reporting Each Problem* N=495
Insufficient time to locate and read all relevant material	24%
Absence of information of the type sought (e.g., lack of empirical data relative to a theory)	9
Problems pertaining to library location, facilities, or procedures	9
Selecting, organizing, and/or reducing material to a level comprehensible to undergraduates	7
Publication lag and the acquisition of current information	5
Diversity of sources in which relevant material appears	5
Overabundance of information making the maintenance of awareness difficult or impossible	5
Poor quality of available information—the vast amount of trivia published and the few useful contributions	4
Absence of good reviews	4
Poor quality of textbooks	3
Keeping up with current work outside own area of specialization or own discipline	1
Maintenance of own adequate filing and retrieval system	<1
Inadequate indexing of certain subjects, making the identification of relevant material difficult	<1
Obtaining foreign journals and reprints (particularly Russian) dealing with current work	<1
Lack of clarity or consistency both in primary and secondary sources	<1
Inadequate background in interdisciplinary areas overlapped by subject (comprehension and presentation of material difficult)	<1
Level of and time allocation for a course (i.e., time allotted course prevents adequate coverage of subject at undergraduate level)	<1
Own lack of interest in topic	<1
Other (lack of visual materials, inadequacy of Psychological Abstracts, motivating students to read, language difficulty as relevant literature not in English, etc.)	4

*Respondents could indicate more than one type of problem.

information sources associated with different subject-matter areas of psychology was possible. The courses that were reported included: abnormal psychology, clinical psychology, personality, motivation and emotion, counseling and guidance, pastoral psychology and psychology of religion, social psychology, survey and public opinion polling, testing and measurement, educational psychology, developmental psychology, child psychology, adolescent psychology, gerontology, cognition and language, language and psycholinguistics, comparative and animal psychology, physiological psychology, experimental psychology, sensation and perception, learning, statistics and experimental design, mathematical models, industrial psychology, applied psychology, introductory or general psychology, history of psychology, systems and contemporary theories, seminar, and various courses outside the subject matter of psychology, such as biology, sociology, and mathematics.

Courses upon which less than 20 respondents reported were with one exception omitted from the comparisons in the tables and figure that follow; the exception was a category designated "Other" (courses outside the field of psychology), which had an N of only 11. Even in so small a group it was hoped that some differences between the field of psychology and other disciplines might be suggested. A miscellaneous category of Seminars (N=50) which included special project seminars, honors seminars, advanced general seminars, etc., was also omitted

because of the diversity of subject-matter they contained. In all, eighteen psychology courses and the one category of courses outside the field were used throughout the comparisons.

The courses, with three major and three lesser exceptions, were primarily at the junior or senior level, some 80% or more of the respondents reported that the students enrolled in their courses were juniors or seniors. The three outstanding exceptions were courses in General Psychology, in which 90% of the respondents described their students as freshmen or sophomores; in Developmental Psychology, 48% freshmen or sophomores; and in Child Development, 40% freshmen or sophomores. Additionally, one third of the respondents teaching Statistics and Experimental Design reported their students to be primarily freshmen or sophomores, as did 30% of those teaching Educational Psychology and 22% of those teaching Experimental Psychology.

The median number of students enrolled in the various courses showed no particular pattern or trend for any grouping of related courses. Most of the classes constituted relatively small groups of between 20 and 40 students. Exceptions were General Psychology and Educational Psychology, both of which were typically taught to classes of more than 50 students.

Characteristics and Scientific and Professional Activities of Teachers

The respondents associated with each of the courses are compared on the basis of highest academic degree in Figure 1. For 13 of the 19 courses used in the comparison there were no teachers holding only a bachelor's degree. Among the remaining six, the highest percentage (8%) was that found for teachers of Statistics and Experimental Design. The percentages of teachers who held only a bachelor's degree for the other five courses were: Learning, 5%; Personality, 4%; Clinical, 3%; Experimental, 3%; and General Psychology, 2%. Figure 1 also shows clearly that teachers of four courses within the field of psychology had a somewhat different degree pattern from that characterizing the others within the field; Educational, Developmental, Child, and Adolescent Psychology tended to have lower percentages of PhD's and higher percentages of Master's degrees and EdD's than the other psychology courses. Abnormal, Clinical, and General Psychology were also characterized by comparatively high percentages of Master's degrees and somewhat lower percentages of PhD's than were found for teachers of courses in Personality, Social, Industrial, History, Systems, and Contemporary Theories, and the experimental ones. Courses outside the field of psychology presented a very different degree pattern from any of those within the field; this grouping had a relatively high percentage (46%) of Master's degrees and equal percentages of PhD and EdD degrees (27% each).

For most of the teachers, psychology had been the major field of their highest academic degree and they were currently teaching in psychology departments. The highest percentages of teachers having degrees in education and teaching in departments of education or in combined departments of psychology and education were those who were teaching courses in Educational Psychology, Developmental Psychology, Child Psychology, Adolescent Psychology, and Clinical Psychology. In the case of teachers of courses outside psychology, only 38% had obtained their degrees in psychology and 27% in education, the rest being from other fields. The departments in which persons in this group were teaching were the following: psychology, 38%; psychology and sociology, 31%; education, 23%; and philosophy and religion, 8%.

With regard to academic rank, there was no clear-cut pattern either for all psychology courses taken together or for related areas of this field. The two courses with the highest percentages of full professors were Industrial (50%) and Systems and Contemporary Theories (43%).

Table XIV presents data on the median dates of highest academic degree, on the median dates of first having complete responsibility for the teaching of a course in psychology, and on the median number of years spent teaching at one's present (at the time of the survey) institution. The earliest median date of highest degree (1952) occurred among the teachers of Industrial Psychology (This is consistent with the largest percentage of full professors occurring among the teachers of this course.) and those of History. The course in which teachers had the most recent median date of highest degree was Experimental (1959). For most courses, the median date of the teacher's first full responsibility for a course in psychology preceded the date of highest academic degree by one or two years. Reversals of this trend occurred in Developmental, Child, Industrial, and History of Psychology as well as in the courses outside psychology.

The median number of years of teaching at one's present institution was for the 18 psychology courses taken together six years prior to the year of this survey. Among these groups, teachers of Educational and of Industrial Psychology had the greatest number of years of teaching

TABLE XIV

INFORMATION ON DEGREE AND TEACHING EXPERIENCE FOR TEACHERS OF EACH COURSE

Course	Median Date of Highest Degree	Median Date Began Teaching Psychology	Median Number of Years Teaching at Present Institution
Abnormal (N=62)	1957	1955	7
Clinical (N=31)	1954	1953	6
Personality (N=81)	1956	1954	8
Social (N=79)	1953	1953	8
Educational (N=54)	1953	1952	11
Developmental (N=44)	1956	1957	6
Child (N=50)	1957	1958	6
Adolescent (N=27)	1957	1957	6
Testing and Measurement (N=60)	1957	1955	7
Experimental (N=90)	1959	1958	6
Learning (N=42)	1958	1956	6
Sensation and Perception (N=21)	1957	1953	7
Physiological (N=29)	1958	1957	4
Statistics and Experimental Design (N=39)	1957	1956	7
Industrial (N=32)	1952	1954	10
General (N=249)	1957	1956	6
History (N=24)	1952	1954	7
Systems and Contemporary Theories (N=28)	1958	1956	8
Courses outside field of psychology (N=11)	1957	1963	14

at their present institutions, 11 and 10, respectively; for courses outside the field of psychology, the median number of years teaching at the present institution was 14. The median number of years each course had been taught by the respondents reporting upon it was, for all courses taken together, five. The highest median, nine years, occurred among teachers of Educational Psychology, and the second highest, seven years, was found for teachers of Industrial Psychology.

The professional activities, other than undergraduate teaching, in which the teachers of the various courses were engaged are shown in Table XV. (To facilitate comparison of these data, percentages greater than 50 have been underlined once and percentages greater than 80 have been underlined twice.) In the professional activities of these teachers of undergraduate courses, a few patterns were perceptible among courses representing different subject-matter areas of psychology. In Social, Industrial, the experimental courses (Experimental, Learning, Sensation and Perception, Physiological, and Statistics and Experimental Design), and the general courses (General, History, and Systems and Contemporary Theories) percentages indicating "research" and "research guidance" were substantial, with "administrative work" also receiving relatively high percentages. For two of the experimental courses, Learning and Sensation and Perception, and also for Child Psychology, "graduate teaching" was one of the three top-ranking activities. In the Industrial group, "research guidance" was indicated by 66% and "consulting and applied work" by 59%, both ranking well below the most frequently indicated activity, "research" (84%). In contrast with these patterns of activity, teachers in the Clinical and Adolescent courses tended to accord "clinical work" a substantially higher percentage than any of their other activities. Teachers of Abnormal, Educational, Developmental, Child, and Testing and Measurement courses tended to have more nearly equivalent percentages among their top-ranked activities which are typically administration, clinical work, and research. For the courses outside the field of psychology, the most frequently indicated activity was "administrative work" (82%) with "clinical work" and "own research" (55%) and "consulting and applied work" and "graduate teaching" (45%) ranking next.

The proportion of each group indicating that undergraduate teaching was their most time-consuming activity typically exceeded one half for all the courses with the following two excep-

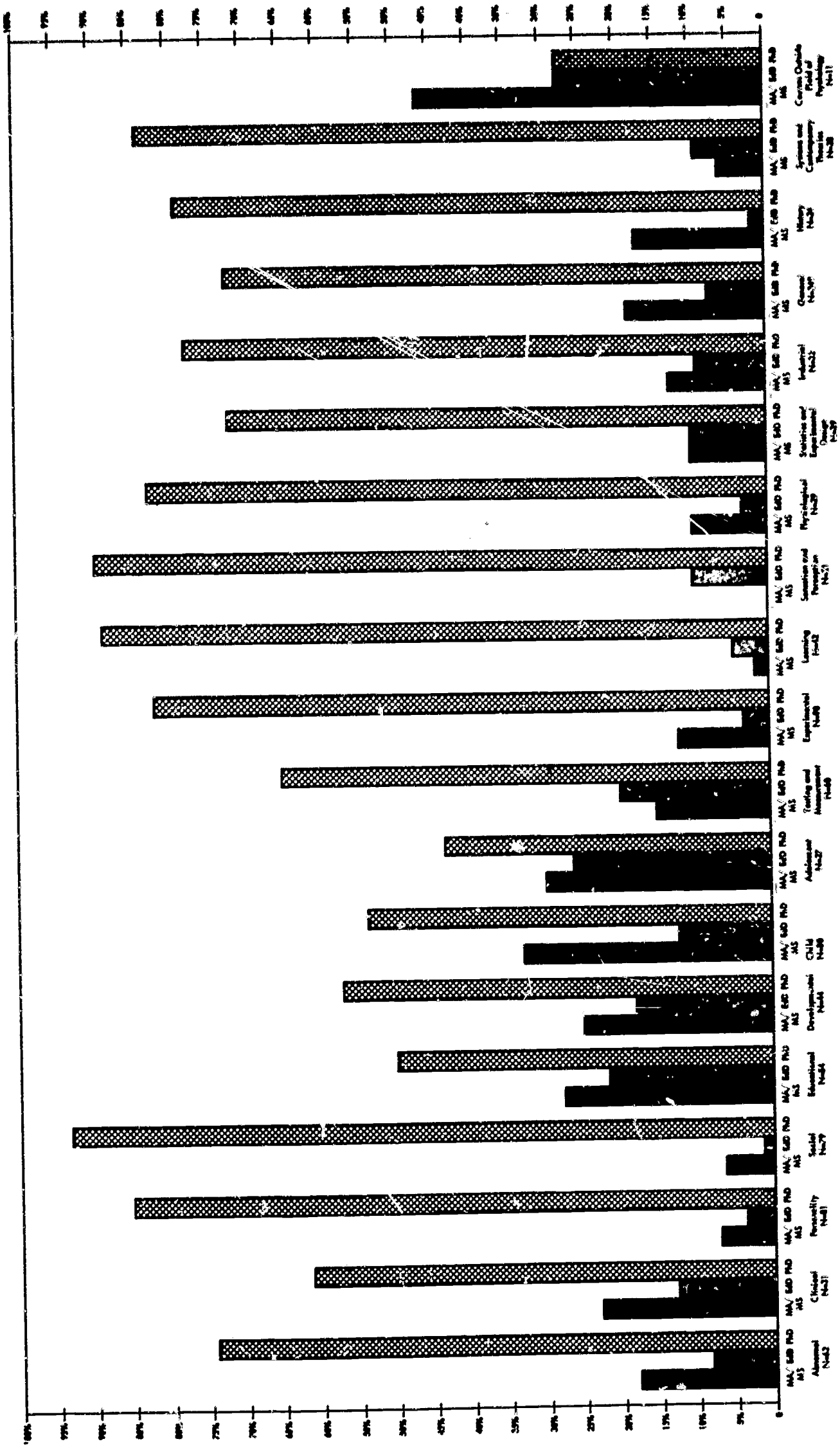

FIGURE 1. Respondents associated with each of the courses compared on basis of academic degree.

TABLE XV

PERCENTAGE OF TEACHERS OF EACH COURSE NAMING ACTIVITIES OTHER THAN TEACHING AS BEING INCLUDED IN PROFESSIONAL RESPONSIBILITIES

Course	Administration	Clinical Work	Consulting and Applied Work	Own Research	Research Guidance	Teaching Graduate Courses	Writing and Editing
Abnormal (N=62)	53%	58%	26%	61%	45%	35%	21%
Clinical (N=31)	50	88	19	53	34	25	13
Personality (N=81)	54	70	17	67	48	46	23
Social (N=79)	44	33	29	78	58	53	35
Educational (N=54)	52	68	19	59	48	35	19
Developmental (N=44)	55	52	20	61	48	36	14
Child (N=50)	42	60	24	52	42	50	22
Adolescent (N=27)	48	59	7	48	33	33	11
Testing and Measurement (N=60)	58	58	25	65	52	37	12
Experimental (N=90)	52	27	12	78	74	39	22
Learning (N=42)	40	19	12	83	67	67	24
Sensation and Perception (N=21)	48	19	43	95	86	52	33
Physiological (N=29)	55	3	21	90	86	52	28
Statistics and Experimental Design (N=39)	56	21	15	74	74	36	36
Industrial (N=32)	53	31	59	84	66	63	31
General (N=249)	54	41	17	63	55	39	21
History (N=24)	54	29	25	67	54	33	29
Systems and Contemporary Theories (N=28)	57	54	14	71	57	46	25
Courses outside field of psychology (N=11)	82	55	45	55	27	45	9

tions: only 38% of the teachers of Sensation and Perception and 48% of those teaching Physiological considered undergraduate teaching most time-demanding. The activities taking precedence in time demand over teaching undergraudate courses were "research" and "administrative work."

Table XVI shows the research and clinical involvement of the teachers in the subject matter of their respective courses. Those teachers who indicated the greatest overlap of their undergraduate courses with their research were found in Learning (64%), Physiological (62%), and Social (54%); those having the least research in the area of their courses were found in Systems and Contemporary Theories (14%), History (12%), Statistics and Experimental Design (13%), General (14%), and Adolescent (15%). The respondents with the greatest clinical applied involvement in the area of their courses were those teaching Clinical (53%), Abnormal (52%), and Personality (46%).

Fewer teachers considered undergraduate teaching their most information-demanding activity than gave it top priority in the allocation of their time. The highest percentages occurred among teachers of Clinical psychology (77%) and among teachers of courses outside the field of psychology (82%). For the most part, research and graduate teaching competed strongly in information demands with undergraduate teaching.

Those seeking current information for their courses, over and above the information needed for their overlapping research and applied activities, are shown in Table XVI. These percentages were generally high; however, in two courses, Statistics and Experimental Design and History, they dropped to 23% and 20%, respectively. The highest percentages seeking current information occurred in Adolescent Psychology (85%), courses outside psychology (82%), Physiological (79%), Industrial (75%), and Learning (74%).

TABLE XVI

PERCENTAGE OF TEACHERS OF EACH COURSE DOING RESEARCH AND APPLIED WORK AND HAVING CURRENT INFORMATION NEEDS IN AREA OF COURSES

Course	Research in Same Area as Course	Clinical or Applied Work in Same Area as Course	Seeking Current Information Especially for the Course
Abnormal (N=62)	31%	52%	60%
Clinical (N=31)	19	53	63
Personality (N=81)	30	46	53
Social (N=79)	54	9	59
Educational (N=54)	30	20	69
Developmental (N=44)	30	23	61
Child (N=50)	32	28	60
Adolescent (N=27)	15	33	85
Testing and Measurement (N=60)	38	43	62
Experimental (N=90)	36	2	61
Learning (N=42)	64	7	74
Sensation and Perception (N=21)	43	14	62
Physiological (N=29)	62	0	79
Statistics and Experimental Design (N=39)	13	5	23
Industrial (N=32)	31	41	75
General (N=249)	14	6	66
History (N=24)	12	0	20
Systems and Contemporary Theories (N=28)	14	4	46
Courses outside the field of psychology (N=11)	36	36	82

Information Sources Used by Teachers

Files of materials for undergraduate teaching were least characteristic of teachers of Statistics and Experimental Design, Systems and Contemporary Theories, and History – 77%, 54%, and 50%, respectively, did not maintain such files. The types of materials filed and the utilization of each by the teachers of each course appear in Table XVII. Preprints, reprints, and convention papers tended to receive the highest percentages throughout all the courses, except Child Psychology and Adolescent Psychology.

Table XVIII presents the utilization of archival sources by the teachers of the various courses. Rarely did percentages of use exceed 50%. The only courses in which more than 50% of the teachers used the Annual Review of Psychology were Physiological (86%), Developmental (57%), Industrial (56%), and Sensation and Perception (52%). For only one course, Learning (62%), did percentages of use of Psychological Bulletin exceed 50%. Psychological Abstracts had generally more substantial percentages of use than did the other sources; the highest percentages occurred in Clinical (59%), Industrial (59%), Adolescent (56%), and Child (52%). Percentages of use of Contemporary Psychology did not exceed 50% among the teachers of any of the courses. The lowest percentages of use of all sources among the various courses compared occurred among the teachers of Statistics and Experimental Design who had also been those indicating least dependence upon files.

TABLE XVII

THE TYPES OF FILED MATERIAL USED BY TEACHERS OF EACH COURSE

Courses	Preprints, Reprints and Convention Papers	Technical Reports, Research Reports and Term Papers	Bibliographies	Film Files and Tapes	Abstracts, Clippings and Card Files	Textbooks, Books and Periodicals	Notes and Outlines	Case Studies	Raw Data	Sample Tests
Abnormal (N=62)	42%	15%	21%	18%	13%	15%	8%	18%	3%	3%
Clinical (N=31)	31	19	13	22	31	13	13	0	0	6
Personality (N=81)	38	12	17	9	14	6	15	2	1	5
Social (N=79)	48	18	22	9	10	14	19	0	1	0
Educational (N=54)	33	30	31	31	28	15	9	6	6	7
Developmental (N=44)	34	9	27	25	25	5	5	5	0	0
Child (N=50)	26	20	32	38	10	16	8	10	2	4
Adolescent (N=27)	33	37	44	37	22	44	4	7	7	0
Testing and Measurement (N=60)	43	20	23	7	15	18	12	5	3	23
Experimental (N=90)	39	10	16	8	10	13	9	0	7	0
Learning (N=42)	50	14	21	12	7	12	7	0	0	2
Sensation and Perception (N=21)	57	29	29	24	19	0	10	0	0	0
Physiological (N=29)	62	17	28	7	10	10	14	0	0	0
Statistics and Experimental Design (N=39)	10	3	3	5	5	3	5	0	3	8
Industrial (N=32)	63	38	22	6	22	16	16	0	0	6
General (N=249)	39	10	20	24	15	11	7	1	3	3
History (N=24)	29	8	17	8	0	8	12	0	0	0
Systems and Contemporary Theories (N=28)	21	7	4	7	14	11	18	0	0	0
Courses outside field of psychology (N=11)	91	27	45	27	45	9	0	0	0	0

TABLE XVIII

PERCENTAGE OF TEACHERS IN EACH COURSE USING ARCHIVAL SOURCES

Courses	Annual Review of Psychology	Other annual reviews	Psychological Bulletin	Other reviews	Psychological Abstracts	Other abstracts	Contemporary Psychology	Other sources
Abnormal (N=62)	40%	11%	32%	13%	50%	0%	45%	6%
Clinical (N=30)	31	9	34	16	59	6	28	13
Personality (N=81)	42	9	32	14	33	1	40	10
Social (N=79)	37	6	42	16	35	7	43	9
Educational (N=54)	35	19	31	20	43	7	22	15
Developmental (N=44)	57	9	39	14	45	6	34	7
Child (N=50)	40	8	42	14	52	0	42	4
Adolescent (N=27)	41	15	26	11	56	4	48	26
Testing and Measurement (N=60)	35	7	35	15	47	3	33	7
Experimental (N=90)	38	8	36	24	38	4	22	7
Learning (N=42)	43	7	62	36	40	0	29	14
Sensation and Perception (N=21)	52	14	43	14	48	14	19	5
Physiological (N=29)	86	55	41	21	48	14	31	28
Statistics and Experimental Design (N=39)	18	0	13	3	21	3	21	3
Industrial (N=32)	56	9	28	13	59	6	31	6
General (N=249)	30	5	35	19	36	2	33	8
History (N=24)	29	8	25	0	20	4	33	4
Systems and Contemporary Theories (N=28)	46	0	36	18	46	4	43	11
Courses outside field of psychology (N=11)	9	0	9	0	18	0	9	18

DIFFERENCES IN PROFESSIONAL CHARACTERISTICS OF TEACHERS AND IN THEIR INFORMATION PRACTICES ASSOCIATED WITH STATUS OF SCHOOLS GRANTING THEIR HIGHEST DEGREE AND CURRENTLY EMPLOYING THEM

This section deals with those characteristics and behavior associated with the status of the school which granted the undergraduate teacher's highest degree and the type of school employing the undergraduate teacher at the time of the survey. The school status is broken down into three categories: "distinguished," "good," and "other" based on Allen M. Cartter's An Assessment of Quality in Graduate Education.[7] The "distinguished" category is the same as Cartter's, and his "strong" and "good" divisions constitute the "good" category. All remaining universities make up the last category of "other"; also included are foreign institutions for which quality estimates seemed inappropriate and American and Canadian universities not ranked in the Cartter study. Without considering 10 foreign universities (contributing only 10 degrees), only 2 of these 75 institutions can be regarded as strong candidates for the "good" or "distinguished" categories.[8] The type of employing institution is divided into four categories: University, Liberal Arts College, Teachers College, and Technical Institution. The majority of the 495 respondents were employed by Liberal Arts Colleges (228) and Universities (200). (It should be noted in Tables XIX – XXVII under the heading "type of school at which respondent teaches" that only 489 respondents institutions could be categorized according to type.)

[7]Allen M. Cartter, An Assessment of Quality in Graduate Education (Washington, D.C.: American Council on Education, 1966).

[8]Estimates were based upon the interrelations among various measures of university quality (personal communication from A. W. Astin) and upon the data in A. W. Astin, Who Goes Where to College?, op. cit.

TABLE XIX-A

HIGHEST ACADEMIC DEGREE OF TEACHERS GROUPED BY STATUS OF SCHOOL GRANTING THAT DEGREE AND TYPE OF EMPLOYING INSTITUTION

		Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach*			
Degree Level	All Undergraduate-Course Teachers N=495	Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Doctorate	85%	96%	90%	70%	95%	77%	78%	100%
Master's	14	4	10	26	4	22	17	0
Bachelor's	1	0	<1	4	1	1	5	0

*Only 489 respondents' institutions could be categorized according to type. This note applies to this heading in all the remaining tables in this report.

TABLE XIX-B

PERCENTAGE DISTRIBUTION OF TEACHERS ON LEVEL OF HIGHEST DEGREE, STATUS OF INSTITUTION GRANTING THAT DEGREE, AND TYPE OF EMPLOYING INSTITUTION

	Employing Institution							
Status of Institution Granting Highest Degree	University		Liberal Arts College		Teachers College		Technical Institution	
	Non-Ph.D.	Ph.D.	Non-Ph.D.	Ph.D.	Non-Ph.D.	Ph.D.	Non-Ph.D.	Ph.D.
Distinguished	0%	11%	1%	5%	<1%	0%	0%	<1%
Good	1	21	8	17	3	2	0	3
Other	1	6	6	9	3	1	0	1

Table XIX-A presents the highest academic degree of the respondents. More than half of the respondents received their highest degree from the "good" category of graduate schools and 90% held the PhD. A clear progression is evident: the highest percentage of PhD's were held among graduates of "distinguished" schools (96%) and the lowest (70%) among graduates of "other" schools. One hundred percent of the 19 teaching in Technical Institutes held the PhD followed by 95% of those located in Universities.

Table XIX-B shows the distribution of respondents on level of degree, status of institution granting highest degree, and type of employing institution. Considering the status of the school granting the degrees first, graduates from "distinguished" departments were primarily found in Universities, and "good" departments furnished the majority of the teachers in every type of school. Turning to institutions, the data make clear the relative quality of training at each type of institution. On this scale, Universities were highest, Teachers Colleges lowest, and Liberal Arts Colleges intermediate. Technical Institution teachers, all PhD's, are difficult to place because of their small number and their not holding degrees below the doctorate.

The year the highest academic degree was received appears in Table XX. There were negligible differences associated with the status of the school granting the degree. Respondents employed in Teachers Colleges tended to be younger (only 12% receiving the degree in 1950 or before) than persons employed by other types of institutions. Table XXI shows the length of time since the respondent had first assumed full responsibility for teaching a course in psychology. Fewer persons holding degrees from "other" schools (10%) than from "distinguished" (24%) or "good" (22%) schools had taught as long as 20 years, presumably a reflection of Wispe and Ritter's observation that the more distinguished graduate departments are older.[9] Also of interest is the apparent lack of any recent graduates teaching in the Technical Institutions (no persons with teaching experience less than five years). This suggests that these institutions may not be expanding psychology departments at the same rate as other types of institutions.

Table XXII-A indicates the academic rank of respondents. Over one third of the teachers who graduated from "distinguished" or "good" schools held the rank of professor. Graduates

[9] Lauren Wispe and James Ritter, "Where America's Recognized Psychologists Received Their Doctorates," American Psychologist, 1964, XIX, No. 8, 634-644.

TABLE XX

DATE OF HIGHEST ACADEMIC DEGREE OF TEACHERS GROUPED BY STATUS OF SCHOOL GRANTING THAT DEGREE AND TYPE OF EMPLOYING INSTITUTION

Date	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree: Distinguished N=83	Good N=264	Other N=148	Respondents Grouped by Type of School at Which They Teach: University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
1961 - 1965	26%	27%	23%	31%	27%	26%	31%	11%
1956 - 1960	29*	27	27	34	27	30	33	28
1951 - 1955	18	11	18	21	16	17	24	33
1946 - 1950	11	13	13	5	14	10	2	16
1941 - 1945	5	4	6	4	5	6	0	0
1936 - 1940	5	8	6	3	6	4	5	6
1935 or before	6	10	7	2	5	7	5	6

*Median=1960.

TABLE XXI

LENGTH OF TIME SINCE FIRST ASSUMING FULL RESPONSIBILITY FOR TEACHING A COURSE IN PSYCHOLOGY GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

Years of Experience	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree: Distinguished N=83	Good N=264	Other N=148	Respondents Grouped by Type of School at Which They Teach: University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
1 or less	3%	3%	3%	2%	3%	4%	3%	0%
2 - 4	21	19	17	25	18	22	24	0
5 - 9	29	31	26	35	31	27	31	44
10 - 14	15	9	16	17	14	16	14	17
15 - 19	14	13	16	11	17	10	16	22
20 or more	18	24	22	10	17	21	12	17
Not indicated	<1	1	<1	0	<1	0	0	0

TABLE XXII-A

ACADEMIC RANK OF RESPONDENTS GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

Rank	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree: Distinguished N=83	Good N=264	Other N=148	Respondents Grouped by Type of School at Which They Teach: University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Professor	33%	37%	37%	25%	32%	35%	36%	28%
Associate Professor	29	26	29	32	27	27	45	50
Assistant Professor	29	35	25	32	36	27	14	22
Other	8	2	8	11	5	11	5	0
Not indicated	<1	0	<1	0	0	0	0	0

of "other" schools, however, tended to have lower rank, and there were fewer professors (25%). Approximately one third of the teachers employed by Universities, Liberal Arts Colleges, and Teachers Colleges were professors. An unusual finding is the approximately one half of those located at Technical Institutions with the one rank of associate professor.

TABLE XXII-B

DEPARTMENTAL AFFILIATION OF RESPONDENTS GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

		Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
Department	All Undergraduate-Course Teachers N=495	Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Psychology	85%	95%	85%	78%	97%	81%	48%	83%
Education	6	0	5	11	<1	8	21	0
Psychology and Education	7	3	7	9	<1	9	29	0
Psychology and Sociology	1	1	<1	1	<1	1	0	6
Philosophy and Religion	<1	0	<1	1	0	1	0	0
Other	1	1	2	0	2	0	2	11

Table XXII-B presents the departmental affiliation of respondents. Over four fifths of all respondents located at Universities, Liberal Arts Colleges, and Technical Institutions were in psychology departments. In Teachers Colleges about half were in psychology departments and the other half were in the combination of education and psychology or education departments.

Table XXIII, the additional professional responsibilities of teachers of undergraduate courses, indicates that, regardless of the status of the school granting the highest degree, three fifths or more were engaged in research and a higher percentage from "distinguished" schools (87%) were so involved. To facilitate comparison of these data, percentages above 50 have been underlined once, and percentages above 80 have been underlined twice. More teachers employed at Universities and Technical Institutions (94% each) were engaged in research than at Liberal Arts Colleges (59%) or Teachers Colleges (41%). Sixty-nine percent of those at Teachers Colleges were preparing for and teaching graduate courses, followed by clinical work and counseling (62%), in contrast with the only 23% of those at Universities engaged in clinical work and counseling. The Liberal Arts Colleges were lowest in the area of preparation for and teaching of graduate courses (19%) as compared with 82% of those respondents teaching in Universities.

Table XXIV shows that preprints, reprints, and convention papers were the types of material most commonly filed for use in undergraduate courses by 71% of those teaching in Technical Institutions but by only 27% of those in Teachers Colleges. Films and tapes, textbooks, other books, and periodicals tended to be the items most frequently contained in teachers' files in Teachers Colleges but were among the least filed by other teachers, suggesting a need in teachers at Teachers Colleges for less technical material (see footnote, Table XXIV).

The description of the relationship of the use of archival sources to undergraduate teaching is found in Table XXV-A. Regardless of the status of school from which the respondent had received his degree the same sources were used, except in one instance. The exception was Psychological Abstracts: 45% and 40% of the "other" and "good" school graduates, respectively, used it as compared with only 29% of those from "distinguished" schools. It is interesting to note that relative to the other types of schools, respondents located in Technical Institutions made the greatest use of the Annual Review of Psychology and Psychological Abstracts. Those in Universities used Psychological Bulletin more than those in the other three settings.

Table XXV-B shows the use of archival sources for purposes other than undergraduate teaching. Approximately one half of those respondents teaching at Liberal Arts Colleges and Teachers Colleges did not indicate any use of archival sources for these purposes. The most

TABLE XXIII

ADDITIONAL PROFESSIONAL RESPONSIBILITIES OF TEACHERS OF UNDERGRADUATE COURSES GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

Professional Activity	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Own research	72%	87%	75%	60%	94%	59%	41%	94%
Research guidance	61	79	63	49	82	46	45	78
Administrative duties	53	54	53	53	52	57	50	33
Preparation for and teaching of graduate courses	51	67	52	39	82	19	69	67
Clinical work and counseling	41	24	40	53	23	51	62	39
Writing and editing	26	45	25	15	38	18	10	28
Consulting or applied work	21	21	22	19	21	17	21	61
Other	8	8	7	5	11	5	10	0
Not indicated	2	0	2	<1	<1	3	2	0

TABLE XXIV

MATERIALS FILED FOR USE IN UNDERGRADUATE COURSES GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

Type of Filed Material	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Preprints, reprints, and convention papers	40%	45%	41%	37%	41%	40%	27%	71%
Bibliographies	21	15	22	21	20	20	26	14
Film and tapes	16	11	18	17	17	14	31*	20
Technical reports, informally circulated research reports, and term papers	15	12	5	19	16	13	21	29
Abstracts and clippings	15	17	16	13	17	14	12	23
Textbooks, other books, and periodicals	12	10	12	12	14	10	29	3
Notes and outlines	10	11	11	6	10	10	6	3
Sample tests	4	3	6	3	5	4	1	3
Case histories	3	2	3	3	2	2	4	3
Raw data	3	1	2	4	3	3	1	0
File used for purposes other than undergraduate teaching	30	36	31	27	28	31	24	58
No materials filed	36	37	39	39	34	38	41	11

*The relatively high percentage reporting files of these materials suggests that the "audio-visual" media might be especially helpful as means of disseminating information in Teachers Colleges.

TABLE XXV-A

USE OF ARCHIVAL SOURCES FOR UNDERGRADUATE TEACHING GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

Source	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Annual Review of Psychology	38%	42%	40%	34%	42%	35%	39%	54%
Other annual reviews	9	6	9	9	10	8	4	6
Psychological Bulletin	35	29	36	35	39	34	26	31
Other sources of reviews	14	11	15	14	16	16	12	14
Psychological Abstracts	40	29	40	45	32	44	37	46
Other sources of abstracts	5	3	0	6	8	3	2	3
Contemporary Psychology	33	33	33	33	32	35	25	17
Other published sources of information	9	5	8	11	7	9	10	14
None indicated	28	29	28	27	30	28	32	11

TABLE XXV-B

USE OF ARCHIVAL SOURCES FOR PURPOSES OTHER THAN UNDERGRADUATE TEACHING GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

Source	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Annual Review of Psychology	44%	59%	43%	36%	63%	30%	29%	37%
Other annual reviews	12	14	11	11	15	9	2	25
Psychological Bulletin	42	45	46	34	61	30	20	46
Other sources of reviews	16	16	16	17	22	12	19	17
Psychological Abstracts	43	44	43	44	53	33	41	46
Other sources of abstracts	10	8	10	12	10	9	10	22
Contemporary Psychology	24	35	23	20	22	16	20	17
Other published sources of information	11	8	10	12	11	10	10	22
None indicated	34	18	36	39	13	49	51	33

TABLE XXVI-A

NATURE OF RESPONDENTS' INVOLVEMENT IN SPECIFIC AREA OF LECTURE GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

(Percentage Reporting Activity)

Type of Involvement	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Conducted research	28%	37%	25%	26%	41%	20%	17%	26%
Presently conducting research	20	28	18	19	30	14	7	26
Directing student research	18	22	17	16	24	14	17	11
Published article	18	27	17	14	29	10	12	26
Currently writing article	11	16	8	14	16	8	2	11
Currently writing book or chapter for book	9	16	8	7	14	6	2	11
Conducting clinical or applied work	14	11	12	20	12	14	21	21
Consulting (outside own institution)	10	11	9	11	10	10	7	21
Other (presenting paper, attending meeting or institute, etc.)	3	2	2	3	3	4	0	0
No involvement	52	41	58	49	43	59	67	47

TABLE XXVI-B

NATURE OF RESPONDENTS' INVOLVEMENT IN SPECIFIC AREA OF LECTURE GROUPED BY STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION

(Percentage Incorporating Activity-Related Material in Lecture)

Type of Involvement	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Conducted research	20%	25%	19%	18%	30%	11%	12%	26%
Presently conducting research	13	18	12	13	19	9	7	26
Directing student research	12	17	12	8	18	7	12	11
Published article	12	19	12	8	20	5	12	26
Currently writing article	6	8	5	6	9	4	2	0
Currently writing book or chapter for book	6	12	5	4	9	4	2	11
Conducting clinical or applied work	13	12	11	17	12	14	10	21
Consulting (outside own institution)	8	6	7	11	7	8	7	16
Other (presenting paper, attending meeting or institute, etc.)	2	1	2	3	2	4	0	0
Not incorporating activity-related material	62	52	66	61	53	70	79	53

TABLE XXVII-A

SOURCES USED IN LECTURE PREPARATION GROUPED BY
STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION
(Percentage Consulting)

Source	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Course text(s)	44%	43%	45%	45%	38%	50%	57%	37%
Other undergraduate texts	33	24	33	41	26	43	31	11
Other books	38	35	37	41	32	41	43	53
Journal literature	23	33	23	18	26	21	17	32
Annual Review of Psychology	9	17	7	7	8	10	7	16
Psychological Bulletin	7	8	7	5	7	7	5	0
Other sources of reviews	3	7	2	3	4	3	5	0
Psychological Abstracts	8	7	10	6	7	8	12	11
Other sources of abstracts	1	1	1	1	1	<1	2	0
Other sources including technical reports, reprints, discussions, etc.	16	20	16	14	17	14	17	37
No sources indicated	30	25	32	28	36	27	19	37

TABLE XXVII-B

SOURCES USED IN LECTURE PREPARATION GROUPED BY
STATUS OF SCHOOL GRANTING HIGHEST DEGREE AND TYPE OF EMPLOYING INSTITUTION
(Percentage Using Information in Lecture)

Source	All Undergraduate-Course Teachers N=495	Respondents Grouped by Status of School Granting Respondents Highest Degree			Respondents Grouped by Type of School at Which They Teach			
		Distinguished N=83	Good N=264	Other N=148	University N=200	Liberal Arts College N=228	Teachers College N=42	Technical Institution N=19
Course text(s)	32%	28%	33%	30%	27%	36%	33%	26%
Other undergraduate texts	28	14	27	37	21	36	31	5
Other books	34	30	34	38	28	39	36	53
Journal literature	22	29	23	16	26	19	17	32
Annual Review of Psychology	5	7	5	5	6	4	5	16
Psychological Bulletin	5	6	6	4	6	6	5	0
Other sources of reviews	3	6	2	3	4	3	2	0
Psychological Abstracts	5	5	5	3	5	4	12	5
Other sources of abstracts	1	0	1	1	1	<1	0	0
Other sources including technical reports, reprints, discussions, etc.	15	17	16	14	16	14	17	26
No sources indicated	37	37	37	43	42	33	33	58

striking finding is the high use of the Annual Review of Psychology by 59% of the "distinguished" school graduates. The respondents teaching in Universities tended to use all these sources more than those teaching in other types of schools.

Table XXVI-A reports the nature of respondents' involvement in the specific area of the lecture reported in the questionnaire. Those graduates from "distinguished" schools were more likely to have been involved in research or reporting of research than those from "good" or "other" schools. Twenty percent of the "other" school graduates were conducting clinical or applied work as compared with 11% of the "distinguished" and 12% of the "good" school graduates. Approximately two fifths of the University teachers had conducted research in the area of their last lecture.

As shown in Table XXVI-B, approximately one half of the "distinguished" school graduates incorporated activity-related material in the specific area of their last lecture and they ranked higher in incorporating such material from every type of involvement except conducting clinical or applied work and consulting outside their own institution (which were ranked slightly more frequently by graduates from "other" schools).

High percentages of teachers at Technical Institutions and Universities incorporated activity-related material in their lecture (47%) as compared with 30% and 21%, respectively, of those in Liberal Arts and Teachers Colleges. The teachers at Technical Institutions and Universities incorporated material primarily from previous or present research and from published articles whereas teachers in Liberal Arts Colleges incorporated the highest percentages of material from their experiences in conducting clinical or applied work. Those teachers incorporating material from research presently being conducted ranged from Technical Institutions (26%) to Teachers Colleges (7%).

Tables XXVII-A and XXVII-B describe the sources consulted and used in lecture preparation. Regardless of degree-granting institution, almost one half of the respondents consulted course texts in preparing their last lecture. It was found that "distinguished" school graduates (33%) consulted journal literature more than those from "good" (23%) or "other" schools (13%). The source most often consulted and used by those teaching in Technical Institutions was books other than texts (53%). The "other" school graduates used other undergraduate texts (37%) while "distinguished" school graduates used them only 14%. Course texts were used by from one fourth to one third of the respondents regardless of type of school in which they were teaching.

SUMMARY

This study of the teaching of undergraduate courses in psychology showed most of the teachers in the sample to be holders of doctorates in psychology; to have had relatively few years of teaching experience and to have been associated with their present institutions for about five years. Eighty percent of them taught no more than three undergraduate courses. Most of the courses were junior-senior level and numbered less than 50 students. Three fourths of the teachers were engaged in research on their own and two thirds of them had responsibility for the guidance of research. Administrative duties, the teaching of graduate courses, and clinical and applied work were other types of responsibilities that occurred relatively frequently among teachers in this sample. Slightly more than half of them considered undergraduate teaching their most time-consuming activity and slightly less than half considered it most information-demanding.

Two thirds of the teachers sought and used current information, beyond that needed for their related activities, for teaching undergraduate courses. Two thirds of them maintained files related to their undergraduate teaching needs and these files contained both archival and informally circulated, relatively current materials. The greatest percentage reported filing preprints, reprints, and convention papers. At least one third of the teachers used all four major archival sources and, with the exception of Contemporary Psychology, they used all types of sources in the field of psychology more often for purposes other than for undergraduate teaching.

Almost half the teachers were conducting or had conducted research related to their most recent lecture and about a third of them incorporated information from their research into their lecture. Fourteen percent of the sample were conducting applied or clinical work relevant to their last lecture and 13% included such information therein. One third of the respondents indicated they had sought no information for their most recent lecture; among those who did seek information, the most frequent reason for doing so was to up-date the material with which the lecture was concerned. Textbooks and other books were sources from which information was

sought most frequently for a lecture, but other books and journals and sources such as discussions with colleagues and informally circulated research reports were found to be more valuable, once consulted, for providing information incorporated in the lecture. One fourth of the respondents had incorporated information received through attendance of a professional meeting, and one eighth of the teachers had used material from foreign sources. Three fourths of the teachers expressed special interest in the topic with which their last lecture had been concerned and such interest most often resulted from the research implications of the material. Two thirds considered the lecture preparation they had described as typical. The main information problem mentioned was not enough time to locate and assimilate all relevant materials.

A comparison of eighteen psychology courses with regard to teacher characteristics and information needs and sources produced largely self-evident findings. The highest percentage of Master's degrees and EdD's occurred in Educational, Developmental, Child, and Adolescent Psychology. Education as the major field of their highest degree and current affiliation with departments of education or of psychology and education also characterized these courses and Clinical Psychology as well. The greatest number of full professors were found in Industrial Psychology, and Systems and Contemporary Theories. Industrial Psychology and History of Psychology teachers had the earliest median date (1952) of highest degree. Teachers of Educational and of Industrial Psychology were apt to have been located at their present institution longer than was true of teachers of other courses considered and they tended to have been teaching the particular courses upon which they reported for a longer period of time.

Clinical work was the major professional responsibility, in addition to undergraduate teaching, indicated by teachers of Clinical, Personality, Educational, Child, and Adolescent Psychology. In the other 13 courses, teachers reported research as their major activity other than undergraduate teaching. Teachers with the heaviest research involvement were found in the five experimental courses and Social Psychology. Substantial percentages of teachers of Social, Industrial, Experimental, and General courses indicated research, research guidance, and administrative work among their professional activities. Graduate teaching was one of the three top-ranking activities of teachers of Learning, Sensation and Perception, and Child Psychology. Teachers in Clinical and Adolescent courses tended to accord clinical work a substantially higher percentage than any of their other activities.

The courses in which teachers reported the least need for current information were Statistics and Experimental Design, and History of Psychology; those who reported the greatest requirement for current information were found in Adolescent, Physiological, Learning, and Industrial Psychology, and courses outside of psychology. The teachers who used files least in their undergraduate teaching were those in Statistics and Experimental Design, Systems and Contemporary Theories, and History of Psychology. The heaviest dependence upon the Annual Review of Psychology occurred among teachers of Physiological Psychology; the greatest use of Psychological Bulletin among teachers of Learning; and the highest percentages of use of Psychological Abstracts among teachers of Clinical, Industrial, Adolescent, and Child Psychology. The least use of any of these sources characterized teachers of Statistics and Experimental Design.

Data associated with the status of the school that granted the undergraduate teachers' highest degree and the type of school currently employing them showed that over half the teachers had received their highest degree from the "good" category of school and that the majority of all respondents were employed in Liberal Arts Colleges and Universities. Graduates of "distinguished" schools (of whom over a third were professors) had the highest percentage of PhD's and were found primarily in Universities. Graduates of "good" departments furnished the majority of teachers in every type of school, had the intermediate percentage of PhD's, and over a third of them were professors. Graduates of "other" schools had the lowest percentage of PhD's and there were fewest professors among them. In the relative quality of training at each type of institution, Universities were highest, Teachers Colleges lowest, and Liberal Arts Colleges intermediate.

Respondents employed in Teachers Colleges tended to be younger than those employed in other types of schools. Few holding degrees from "other" schools had taught as long as 20 years. No Technical Institution teachers had less than five years of teaching experience and all had PhD's.

More graduates from "distinguished" schools were engaged in research than those from "good" and "other" schools and more teachers at Universities and Technical Institutions were engaged in research than those at Liberal Arts or Teachers Colleges. A high percentage of teachers at Teachers Colleges were engaged in clinical work and counseling, compared with a very low percentage so engaged at Universities. Teachers at Liberal Arts Colleges reported

considerably less activity than University teachers in preparation for and teaching graduate courses.

Regardless of their degree-granting institution, respondents used the same archival sources for undergraduate teaching, but fewer graduates of "distinguished" schools used Psychological Abstracts. Technical Institution teachers made greater use than teachers in other settings of Annual Review of Psychology and Psychological Abstracts.

About half the teachers at Liberal Arts and Teachers Colleges used no archival sources for purposes other than undergraduate teaching. "Distinguished" school graduates reported high use of Annual Review of Psychology for these purposes and University teachers tended to use all sources more in this way.

Higher percentages of "distinguished" school graduates were involved in research in the area of their last lecture and "other" school graduates reported more involvement in clinical or applied work than graduates of schools of different status.

Almost half of the "distinguished" school graduates, University teachers, and teachers in Technical Institutions incorporated activity-related material in the area of their last lecture. Higher percentages of teachers in all categories, except those in Technical Institutions, consulted course texts more frequently than other sources in lecture preparation. Over half the teachers in Technical Institutions consulted books other than course texts in lecture preparation and over half used information from such books in the lecture.

The reason for deliberately conducting studies of persons engaged in the less-productive activities within psychology is to obtain evidence as to these persons' information needs and practices in order to complement other Project studies which have centered upon those media employed by the active researcher and which have not emphasized the information needs and activities of other psychologists. In this light, the data very clearly suggest that teachers consult a great diversity of formal and informal media in the course of their work; seek and are eager to use information on current research (apparently, in the context of teaching, partly for its news value); use and rely upon their own experiences as researchers and clinicians in preparing lectures; and encounter a paucity of material appropriately selected and processed for their and their students' needs. In aggregate these findings suggest several areas in which there are poor matches between the task of the teacher and the information sources available to him.

There are many selection processes prevalent in science that generally operate to distribute the resources of the discipline to those persons who are best able to use them and have used similar resources well in the past; included are graduate student and staff selection, grant and fellowship distribution, etc. These processes are evident in the present data and have very clear consequences for the distribution of teachers to different institutions and their performance as seekers and communicators of information.

The "advantaged" teacher, i.e. the well trained person in a university, as opposed to the disadvantaged teacher, more directly links his teaching to scientific activity in psychology. He is, himself, more likely to be active in research, and he more frequently relies upon research reports or more technical formal sources, and on his own research for information for his teaching. Thus, the present study points both to an inadequacy of sources for teaching and to the likely areas in which such inadequacies may have the greatest impact on instruction.

APPENDIX

Please answer the following questions relative to the undergraduate courses you teach in psychology (i.e. courses in psychology which are taught primarily for undergraduate credit) and return the completed questionnaire in the enclosed stamped envelope. The data obtained through this questionnaire will not be reported in any way which would allow the identification of either individuals or institutions. The second page of the questionnaire deals with a single preparation for a lecture, and we hope you will be able to complete this portion in one sitting.

1. (a) What is your highest academic degree?_____ Date received?_____(year) Major field?_____
   (b) From which institution did you receive it?_____
   (c) When did you first teach a course (with full responsibility for the course) in psychology?_____(year)
   (d) When did you begin teaching at your present institution?_____(year)
   (e) In what department do you hold your academic appointment?
   Psychology_____ Other (please name)_____
   (f) What is your present academic rank?_____

2. Please list the undergraduate courses that you are currently teaching and state the approximate number of academic years you have taught each course. Write "first time" if you have never taught the course before. If you are not presently teaching any undergraduate courses, Check here ☐, and return the questionnaire.

COURSE	REQUIRED TEXTS	STUDENTS: Mainly Freshmen/ Sophomores	STUDENTS: Mainly Juniors/ Seniors	STUDENTS: Approximate Number	Number Academic Years Taught
A.					
B.					
C.					
D.					
E.					

3. (a) Check any in the list below which (in addition to teaching undergraduate courses) are among your scientific and professional activities.
   ____Administrative duties (chairman, project supervisor, dean, etc.)
   ____Clinical work (therapy, counseling, testing)
   ____Consulting or applied work (industrial, human factors, etc.)
   ____Research of your own
   ____Research guidance of students
   ____Preparation for and teaching of graduate courses
   ____Writing and editing, apart from reporting your own research
   ____Other

   (b) Is undergraduate teaching currently the most time consuming of your scientific and professional activities?
   Yes_____No_____
   If NO, please name the above activity which is most time consuming._____

   (c) Of all your scientific and professional activities, does undergraduate teaching place the greatest demands on you to gather and use scientific information?
   Yes_____No_____
   If NO, please name the above activity which does place the greatest information demands._____

4. (a) If you are presently conducting research, check any of your undergraduate courses which deal with the same specific area as your research. (Use letters A through E as in Question #2 to identify courses.)
   A☐ B☐ C☐ D☐ E☐ None☐

   (b) If you are involved in clinical or applied work, check any of your undergraduate courses which are in the same area as your clinical or applied work. (Use letters A through E as in Question #2 to identify courses.)
   A☐ B☐ C☐ D☐ E☐ None☐

5. Check any of your courses for which you collect and use current information (i.e. recent findings in research or recent studies and innovations in applied work) which is not specifically needed in or directly relevant to the special areas of your own research or applied work?
   A☐ B☐ C☐ D☐ E☐ None☐

6. (a) Do you maintain a file of materials (e.g., of reprints, technical reports, bibliographies, film file, etc.) for any of your undergraduate courses?
   Yes_____No_____
   If YES, please describe the nature of the file(s) you maintain and check whether the file is also used in your other scientific and professional activities?

	Type of Materials Contained in File	Check here if the File is Also Used for Research, Graduate Teaching, Clinical or Other Applied Work
Course A		☐
Course B		☐
Course C		☐
Course D		☐
Course E		☐

   (b) Check any of the following sources which you regularly search to obtain information for the teaching of your courses and/or for your other scientific and professional activities.

	Sources Regularly Searched For Your Courses: A	B	C	D	E	None	Sources Regularly Searched For Research, Graduate Teaching, Clinical or Other Applied Work
Annual Review of Psychology							☐
Other Annual Reviews							☐
Psychological Bulletin							☐
Other sources of reviews Please name_____							☐
Psychological Abstracts							☐
Other sources of abstracts Please name_____							☐
Contemporary Psychology							☐
Other sources of book reviews Please name_____							☐

(Please see other side)

The remaining questions deal with your preparation for your last lecture to an undergraduate class.

7. Please check the course and name the specific topic of the lecture.

Course A☐ B☐ C☐ D☐ E☐

Lecture topic_____

8. Did this preparation involve your consulting any sources of scientific information in addition to reviewing your notes?

Yes_____ No_____ If NO, skip to Question 10.

If YES, why was additional information sought?

____ to recheck the accuracy or to review material already in course notes.
____ to supplement notes with more recent information on a specific topic.
____ to gather information as part of preparing the lecture the first time or for a new topic in the lecture.
____ to serve some other purpose. Please describe the objectives you had in making this additional information and the type of information sought.

_____

_____

9. Check any of the following sources which were consulted in the preparation of the lecture and (separately) check those which were fruitful in terms of providing information that you incorporated in your lecture.

Source	Consulted	Source Provided Information for Lecture
Course text(s)	☐	☐
Other undergraduate text(s) in area	☐	☐
Other books	☐	☐
Journal literature. Please name journals		
Journal_____	☐	☐
Year of Publication_____		
Journal_____	☐	☐
Year of Publication_____		
Reviews in Annual Review	☐	☐
Reviews in Psychological Bulletin	☐	☐
Other source of reviews, please name_____	☐	☐
Psychological Abstracts	☐	☐
Other sources of abstracts, please name_____	☐	☐
Other sources including technical reports, reprints, and discussion with colleagues in graduate seminars, etc. Please describe._____	☐	☐

10. Are you, or have you been, involved in any research, clinical or applied activities directly related to the specific subject matter of your last lecture?

Yes_____ No_____

If YES, please check activity below, and indicate whether you included in the lecture any of your own research findings or your own experiences in applied work.

Activity in Area	Check Your Activities in Area of Lecture	Check those Activities Which Furnished Findings or Experiences Incorporated in Lecture
Conducted Research	☐	☐
Published article	☐	☐
Presently conducting research	☐	☐
Directing student's research	☐	☐
Writing article	☐	☐
Writing book (or chapter in book)	☐	☐
Involved in applied work (e.g. psychotherapy, counseling, etc.)	☐	☐
Consulting outside your own institution	☐	☐
Other (Please specify)_____	☐	☐

11. (a) In your last lecture, did you report any new information which you obtained at a recent meeting, convention, or conference?

Yes_____ No_____

If YES, please check the source(s) of the information below.

____ State convention
____ Regional convention
____ Annual APA convention
____ Psychonomic Society meetings
____ International meetings
____ Professional or scientific committee
____ An invited address
____ A colloquium within your own institution
____ A colloquium outside your institution
____ A thesis committee
____ Other (Please specify)_____

(b) In this lecture did you report any recent information which you obtained from foreign countries?

Yes_____ No_____

If YES, please indicate source.

____ Reviews of foreign literature
____ Correspondence
____ Foreign visitor
____ Foreign journal
____ Foreign book
____ Other (Please specify)_____

12. (a) Do you consider the preparation of this lecture in any way atypical?

Yes_____ No_____

If YES, please explain why._____

_____

(b) Is the topic of the lecture one of particular interest to you?

Yes_____ No_____

If YES, what is the nature of your interest in the topic of the lecture? (For example, do you have research going on in the area, have you once reviewed the area, do you like the challenge of explaining this topic, etc.?)

_____

_____

13. Consider the course in which you gave this lecture. What do you regard as the major problem you have in obtaining scientific information relevant to this course?

_____

_____

_____

(Please see other side)